

# Apple <--> Atari Communications

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The Apple-Atari Communications software allows you to easily transfer data between the two computers. The Apple controls all aspects of the transfer.

The Apple end is a routine called "XA" which loads at location 700 (\$2BC). It is designed to be called from BASIC. There are 5 entry points.

CALL XA,<byte>	Send single byte
CALL XA+3,<word>	Send two bytes
CALL XA+6,<start>,<length>	Send range of memory
CALL XA+9,<string exp>	Send string (and nothing but, ie: no zero)
CALL XA+12,<start>,<length>	Receive range of memory from Atari.

The Atari end of the program is auto-booted from the Apple-Atari Transfer Software disk. It loads from \$2000.2FFF and includes CORDOS which is used by The Print Shop and The Print Shop Companion. Zero page usage is \$80.8F. The Atari end of the transfer software is the part that must respond to commands from the Apple. It supports 7 different commands. The commands are called from the Apple by CALL XA,<command>. The parameters, if any, that follow are dependent upon the command. Here are the specifics:

- 0-Receive Block
  - <starting address> (word)
  - <length> (word)
  - <data>.....
- 1-Execute CORDOS command
  - <filename>,<zero byte> (text followed by zero)
  - <starting address parameter> (word)
  - <length parameter> (word)
  - <CORDOS command> (byte)
- 2-CATALOG a CORDOS disk, no parameters.
- 3-JSR to subroutine in Atari. Returns to transfer software.
  - <address> (word)
- 4-Read sectors into Atari memory
  - <buffer address> (word)
  - <sector number> (word)
  - <sectors to read in> (byte)
- 5-Write sectors from Atari memory
  - <buffer address> (word)
  - <sector number> (word)
  - <sectors to write out> (byte)
- 6-Send memory from Atari to Apple.
  - <starting address> (word) Atari receives
  - <length> (word) Atari receives
  - <data>.... Atari sends to Apple!

<b>① Receive Block</b> <start adr> 2 <length> 2 data..... ?	<b>① Execute CORCOS command</b> ' <filename>, 0 ? <start parm> 2 <length parm> 2 <command> 1	<b>② CATALOG no parms</b> \$AAAA,LLLL, <FILENAME> FREE-SECTORS=FFFF	<b>③ JSR to routine in Atari</b> <routine> 2
<b>④ read sectors</b> <buffer adr> 2 <start sector> 2 <#sectors> 1	<b>⑤ write sectors same as ④</b>		

<b>⑥ send block from Atari to Apple</b> <start> 2 <length> 2	apple sends <data> Atari sends
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handshake

Atari ready	data	apple ready	Apple
3	2 1	0	Send

Atari Data	not used	apple demand to send	Atari
3	2 1	0	Send

XA, <byte>	send
XA+3, <word>	
XA+6, <start>, <length>	
XA+9, <string>	
XA+12, <start>, <length>	Receive!

first Atari sends 1 bit to initiate transfer